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GOVERNOR

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

PATRICK C. KELIHER
COMMISSIONER

May 24, 2021

Dear Hurricane Island Foundation,

DMR has reviewed your gear amendment application for experimental aquaculture lease PEN HIX, located north of Hurricane Island, in Penobscot Bay, Vinalhaven. Your request was processed in accordance with DMR Regulations Chapter 2.44. No public comments were received. After review, we find that the requests to change the dimensions of your currently permitted raft from 12' x 20' to 14' x 28', and to add a 250' longline for the year-round cultivation of sea scallops (*Placopecten magellanicus*) to your lease do not violate any of the lease issuance criteria set forth in 12 M.R.S.A. §6072(7-A). Furthermore, this request is consistent with the findings of the original decision and would not result in a change to the original lease conditions. Therefore, your request has been approved, effective on the date of this letter.

The following conditions, which were imposed on your lease, remain in place:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Scallop dragging and lobster fishing, except by authorization of the leaseholder, is prohibited within the lease boundaries.
3. Gear must not be deployed within 25-feet of observed eelgrass beds.

Please retain a copy of this letter for your records. Your original lease application and decision, any previously approved amendments, and this amendment approval letter, may serve as the operational plan for the lease.

Patrick C. Keliher, Commissioner,
Department of Marine Resources

STATE OF MAINE

Hurricane Island Foundation

DEPARTMENT OF MARINE RESOURCES

PEN HIX

Experimental Aquaculture Lease Application
Suspended culture of marine algae and shellfish
Penobscot Bay, Vinalhaven

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Hurricane Island Foundation applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease for scientific purposes located north of Hurricane Island in Penobscot Bay, Vinalhaven, Knox County. The proposed lease is 3.71¹ acres in size, and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), sea scallop (*Placopectin magellanicus*), blue mussel (*Mytilus edulis*), and American/eastern oysters (*Crassostrea virginica*). DMR accepted the application as complete on January 29, 2019. No requests for a public hearing were received during the comment period, and no hearing was held.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Vinalhaven and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period was published in the February 14, 2019 edition of the *Wind*. The evidentiary record regarding this lease application includes the application, DMR’s site report dated June 4, 2019, and the case file. The evidence from each of these sources is summarized below.²

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

As part of their research and educational programming, Hurricane Island foundation intends to cultivate marine algae and shellfish using various techniques. Specifically, the proposed lease will be utilized to evaluate different gear types and stocking densities, explore the effects of the aquaculture site

¹ Applicant originally requested 4 acres. DMR calculations, based on the coordinates provided, indicate the proposed site is 3.71 acres.

² These sources are cited, with page references, as CF (case file), App (application), SR (site report).

on commercial species, and compare offshore and inshore aquaculture sites (App 7). The applicant intends to deploy 30 bottom cages, 30 floating oyster ranches, and four 200 foot longlines (App 10). Lantern nets, scallop ear hanging lines, and marine algae will be suspended from the proposed longlines. Most research and educational activities will occur from April through October (App 9). Gear maintenance and data collection will occur monthly from November through March (App 9). The cultivation schedule for each organism is included in the table below.

Organism	Cultivation Schedule
Marine algae	Lines seeded in September and October and harvested from May through August
Oysters	Seeded June-August and harvested from April through October
Mussels	Seeded on collector ropes between spring/summer (during spawning) and harvested from April through October
Scallops	Spat bags deployed in September and retrieved in May and June. Spat bags are sorted from May through October.

All organisms listed above will be harvested by-hand (App 9). The proposed lease is for scientific purposes, so the organisms harvested from the site will not be sold (App 7).

B. Site Characteristics

On April 30, 2019, DMR scientists visited the proposed lease site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed site occupies subtidal waters in a cove, which is formed by tidally exposed rock outcroppings that extend from the northern end of Hurricane Island (SR 2). Rocks characterize the shoreline to the east, south, and west of the proposed site (SR 2). The uplands to the south of the proposed lease site are characterized by undeveloped coniferous forest (SR 2). At mean low water, the distance from the western boundary of the proposed lease site to the nearest point of land (intertidal rocks) is ~30 feet (SR 5). At

mean low water, the water depths within the proposed site ranged from ~5.9 feet at the SW corner to ~28.3 feet at the NW corner (SR 5).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other water related uses of the area, taking into consideration other aquaculture uses in the area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured on the lease site.

A. Riparian Access

During the site visit, DMR staff did not observe any docks or moorings within the vicinity of the proposed lease site (SR 6). The Hurricane Island Trust is the only riparian landowner within 1,000 feet of the proposed lease site (App 18). The Hurricane Island Trust granted written permission for Hurricane Island Foundation to utilize the northern shore of Hurricane Island to access the proposed lease site, including the intertidal zone (App 19).

Based on the evidence, it is reasonable to conclude that there are no concerns about the effects the proposed site may have on riparian ingress and egress.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

During the site visit, DMR staff observed vessels navigating in the marked deep-water channels, which are located over 1,000 feet to the north and east of the proposed site (SR 7). According to the site report “the proposed activities...will have no impact on vessels transiting through the general area” (SR 7). Navigating into the cove to the west and east of the proposed lease boundaries is hindered by tidally exposed ledge (SR 7). However, shallow-draft vessels will maintain the ability to navigate through the proposed lease site (SR 7).

During the review period, DMR did not receive any comments regarding navigation. Based on the absence of comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on navigation within the area.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with navigation.

C. Fishing & Other Uses

Fishing. At the time of the site assessment, no commercial or recreational fishing activities were observed within the boundaries of the proposed site (SR 7). Lobster buoys were noted in the channel between Hurricane Island and Green's Island and some were seen near the cove (SR 7). The site visit occurred on April 30, 2019, so it is likely that some commercial and recreational fisheries within the area are more prevalent during the summer months (SR 7). During the review period, DMR did not receive any feedback regarding commercial or recreational fishing.

Exclusivity. The applicant requests that scallop dragging and lobstering be prohibited within the boundaries of the proposed site to avoid gear entanglement (App 11). Restricting scallop dragging and lobster fishing within the boundaries of the lease site is reasonable to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided for in 12 MRS §6072-A (15). Conditions reflecting these restrictions will be included in the lease.

Other aquaculture uses. There are three Limited Purpose Aquaculture (LPA) licenses located within the boundaries of the proposed lease site (SR 7). The LPAs are held by Phoebe Jekielek, who is designated as the primary contact and signatory for Hurricane Island Foundation's pending lease application (SR 7). According to the application, the experimental lease, if granted, will replace the LPA sites (App 11). The nearest aquaculture site, unaffiliated with Hurricane Island, is more than two miles to the north of the proposed lease site (SR 7).

Other water-related uses. During the site visit on April 30, 2019, DMR staff did not observe any other water-related uses of the proposed lease area. During the review period, the Department did not receive any comments detailing other uses of the area. Based on the absence of public comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on other water-related uses of the area.

Therefore, considering other aquaculture uses of the area, the activities proposed for this site will not unreasonably interfere with fishing or other water related uses of the area.

D. Flora & Fauna

According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed site is located within an area designated as habitat for the Harlequin Duck (*Histrionicus histrionicus*), which is a State of Maine Threatened species (SR 8). The proposed site is located 2,100 feet to the south of a ¼ mile boundary surrounding a bald eagle nest (*Haliaeetus leucocephalus*) on the southern end of Crane Island (SR 8). The proposed site is more than 3,500 feet to the west of MDIFW designated Tidal Wading Bird and Waterfowl Habitat (SR 8). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that “minimal impacts are anticipated for this lease.”³

Data collected by DMR, in 2004, indicate that there are no historical eelgrass beds around Hurricane Island (SR 9). However, the application notes that eelgrass is present in the southwestern quadrant of the proposed lease site (App 25). During the site visit, staff used a GoPro video camera to document the extent of eelgrass within the proposed site. Staff also used a handheld GPS unit to collect “waypoints” (location information) along the video transects and at the respective drop camera locations (SR 9).

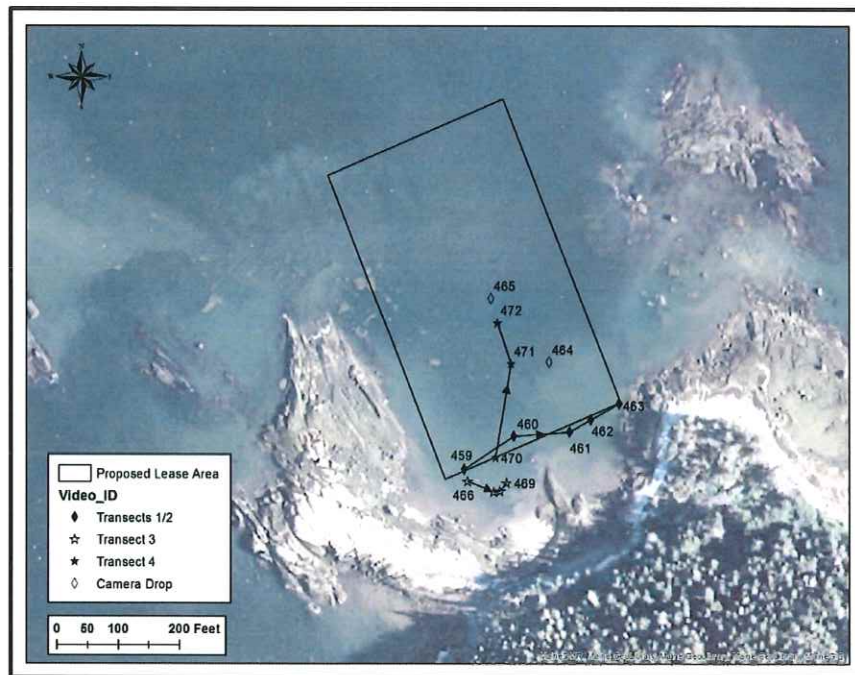


Figure 1: Drop camera transects with labeled GPS waypoints. Image from site report.

³ CF: Email from B. Settele (MDIFW) to C. Burke dated March 7, 2019.

The video transect times and durations were compared with the times of the GPS waypoints to better ascertain the location of eelgrass (SR 11). Eelgrass was present along the southern boundary of the proposed lease site, both within and outside the respective area (SR 20). Staff observed a continuous bed of eelgrass that began between waypoints 460 and 461, and continued into waypoint 463 (SR 20). Eelgrass also extended northward into the proposed lease site (SR 20).

To minimize shading and physical disturbance to observed eelgrass beds, the site report recommends shifting the southern boundary of the proposed lease site 75 feet to the north (SR 20). This recommendation will be adopted and the proposed southern boundary will be modified accordingly. Based on the modification, the lease site is now 3.17 acres and the new coordinates for the SE and SW corners are as follows:

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	
NW	44° 02' 26.7" N	68° 53' 32.5" W	<i>then 308.40 feet at 66.83° True to</i>
NE	44° 02' 27.9" N	68° 53' 28.6" W	<i>then 446.65 feet at 158.72° True to</i>
New SE	44° 02' 23.79" N	68° 53' 26.38" W	<i>then 308.40 feet at 246.83° True to</i>
New SW	44° 02' 22.59" N	68° 53' 30.27" W	<i>then 446.65 feet at 338.73° True to NW.</i>

The site report also advises that any gear (submerged and suspended), “not be deployed within 25 feet of known eelgrass beds” (SR 20). The lease will be conditioned to reflect this recommendation, to further minimize any potential effects to eelgrass.

Based on the reduction to the southern boundary of the proposed lease site and a condition preventing the deployment of gear within 25 feet of known eelgrass beds, and MDIFW’s review of the proposal, it appears that the proposed aquaculture activities will not unreasonably interfere with the ecological functioning of the area.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

E. Public Use & Enjoyment

Per the site report, “There are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site” (SR 21).

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

F. Source of Organisms

The applicant intends to source marine algae, sea scallops, and blue mussels from the wild. Sourcing this stock from the wild is permitted, so long as the applicant complies with applicable laws and regulations (SR 21). American oysters will be sourced from Mook Sea Farms in Walpole, Maine which is a DMR approved hatchery (SR 21).

Therefore, the applicant has demonstrated that there is an available source of stock to be cultured for the lease site.

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.
4. Given the modifications to the southern boundary and an added condition concerning gear placement, the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
5. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.
6. The applicant has demonstrated that there is an available source of stock to be cultured for the lease site.

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

5. DECISION

Based on the foregoing, the Commissioner grants the requested experimental lease of 3.17 acres to Hurricane Island Foundation for three years, the lease boundaries being amended as discussed in Section 3.D of this decision, the term of the lease to begin within twelve months of the date of this decision, on a date chosen by the lessee⁴; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the lessee for the suspended culture of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), sea scallop (*Placopectin magellanicus*), blue mussel (*Mytilus edulis*), and American/eastern oysters (*Crassostrea virginica*). The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (12) (B) in the amount of \$5,000.00, conditioned upon performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

6. CONDITIONS TO BE IMPOSED ON LEASE

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MRSA §6072-A (15)⁵. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease.

The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.

⁴ DMR Rule 2.64 (14) provides:

“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

⁵ 12 MRSA §6072-A (15) provides that:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”

2. Scallop dragging and lobster fishing, except by authorization of the leaseholder, is prohibited within the lease boundaries.
3. Gear must not be deployed within 25-feet of observed eelgrass beds.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on the site within the preceding year, that research has been conducted in a manner injurious to the environment or to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Dated: _____

7/2/19



Patrick C. Keliher, Commissioner
Department of Marine Resources